



THE FOUNDATION COURSE

MODULE SYNOPSIS

Course Orientation

A Welcome Letter

1. Biomechanical Concepts

- 1.1 Introduction to Biomechanics
- 1.2 Branches of Biomechanics
- 1.3 Newton's Laws of Motion
- 1.4 Biomechanical Terms and Concepts
- 1.5 Motion
- 1.6 Descriptors of Movement
- 1.7 Flight & Angular Motion
- 1.8 Torque, Coupled Forces, & Angular Momentum
- 1.9 Summation of Force
- 1.10. Observation and Feedback

2. Physiology

- 2.1 Introduction to Physiology
- 2.2 Introduction to the structure of the muscular system
- 2.3 Factors impacting the generation of muscular force
- 2.4 Muscular Adaptations to Resistance training
- 2.5 The Nervous System
- 2.6 Biochemistry and Sport Performance
- 2.7 Neuroplasticity and Neuropsychology
- 2.8 Energy Systems and their interaction
- 2.9 The Endocrine and Integumentary Systems
- 2.10 Fatigue, Stress, Rest & recovery
- 2.11 The effect of travel on athlete physiology
- 2.12 Understanding the Implications of the Unique Anatomy & Physiology of the Female Athlete
- 2.13 Anecdotal Thoughts on Physiology in Action

3. Functional Anatomy & Kinesiology

- 3.1 Introduction to Anatomy & Kinesiology
- 3.2 Anatomical Terminology
- 3.3 Systems of the Human Body
- 3.4 The Skeletal System
- 3.5 Skeletal Development
- 3.6 Spinal Abnormalities & Skeletal Injury
- 3.7 Joints
- 3.8 Microstructure of the Muscular System - Recap
- 3.9 The Muscular System Explored
- 3.10 Muscles of the Human Body - Upper Body
- 3.11 Muscles of the Human Body - Hip, Pelvis & Lower body
- 3.12 Muscles of the Human Body - The 'Core'
- 3.13 The Fascial Matrix and Sling Systems
- 3.14 Muscular Injury

4. Training Methodology - Concepts Essential to Good Programming

- 4.1 Methodology Defined
- 4.2 Adaptation
- 4.3 A review of periodization methods
- 4.4 An introduction to loading
- 4.5 Exercise classification
- 4.6 Loading Methods
- 4.7 Specificity
- 4.8 Variation
- 4.9 Individualization

5. Planning & Organization

- 5 Planning & Organization
- 5.0 Introduction to Planning
- 5.1 General Plans for Specific Populations
- 5.2 Planning a Club Document
- 5.3 Planning for Specific Event & Player Groups
- 5.4 The Annual Plan
- 5.5 Medium-term Planning for Reaction-Based Programming
- 5.6 Microcycle Planning
- 5.7 Session Planning

6. Progressions

- 6 Progressions
- 6.1 Introduction
- 6.2 The Need for Progressions
- 6.3 Long Term Progressions into High Performance Sport
- 6.4 Bulletproofing - Creating a Healthy Athlete
- 6.5 Long Term Progression of Biomotor Abilities
- 6.6 Long Term Endurance Progressions
- 6.7 Long Term Speed Progressions
- 6.8 Long Term Strength Progressions
- 6.9 Long Term Special Strength Progressions

7. Cueing

- 7.1 An Introduction to Cueing
- 7.2 An Overview: Learning, Technique, and Technical Models
- 7.3 Delving Deeper: Motor and Skill Learning
- 7.4 Motor Learning Theories
- 7.5 Practice to Actualization
- 7.6 Understanding the Teaching Process
- 7.7 Feedback
- 7.8 Cue Formats
- 7.9 Practical Cueing Strategies

8. Athlete Management

- 8.1 Personality & Behavior
- 8.2 Environment & Group Management
- 8.3 Coach-Athlete Communication & Reporting
- 8.4 Key Performance Indicators, Accountability, Goals
- 8.5 Balance & Transition
- 8.6 Millennials & Resilience
- 8.7 Managing Relationships
- 8.8 Maximizing Competitive Performance
- 8.9 Coach Health

9. Strength Development Fundamentals

- 9.1 First Principles in Muscular Strength
- 9.2 Loading Parameters
- 9.3 Eccentric Training
- 9.4 Writing the Program
- 9.5 Monitoring & Data Collection
- 9.6 Strength & Power Assessment

10. Strength Exercise Inventory

- 10.1 Warm Ups for Strength Training
- 10.2 Zone 1 Exercises
- 10.3 Zone 2 Exercises
- 10.4 Zone 3 Exercises
- 10.5 Structural Integrity / Tolerance
- 10.6 Rotational Exercises
- 10.7 Bodyweight Exercises

11. Speed Development Fundamentals

- 11.1 An Introduction to Speed
- 11.2 Speed: Models, Systems, & Theories
- 11.3 Fundamentals of Sprinting
- 11.4 Speed: The ALTIS Philosophy
- 11.5 Speed: The Start Point
- 11.6 Speed: Acceleration Concepts
- 11.7 Speed: Maximum Velocity
- 11.8 Speed: Error Detection & Correction
- 11.9 An Introduction to Gamespeed

12. Speed Exercise Inventory

- 12.1 Preparing for Speed
- 12.2 Developing Starting Abilities
- 12.3 Acceleration Development
- 12.4 Maximum Speed Development
- 12.5 Developing Speed Endurance
- 12.6 Plan B for Speed
- 12.7 Programming Considerations for Speed Development

Course Graduation